



**MCP ENGINEERING PLASTICS LIMITED**

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**PC – Engineering Grade (Polycarbonate)  
Material Specification  
(Typical Properties)**

Physical

Property	Method	Units	Specification
Specific Gravity	---	g/cm <sup>3</sup>	1.19
Water Absorption	DIN EN ISO 62	%	0.03 / 0.06

Mechanical

Property	Method	Units	Specification
Modulus of elasticity (tensile test)	DIN EN ISO 527-2	MPa	2200
Tensile strength	DIN EN ISO 527-2	MPa	69
Tensile strength at yield	DIN EN ISO 527-2	MPa	69
Elongation at yield	DIN EN ISO 527-2	%	6
Elongation at break	DIN EN ISO 527-2	%	90
Flexural strength	DIN EN ISO 178	MPa	97
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	2300
Compression strength	EN ISO 604	MPa	16 / 29
Compression modulus	DIN EN ISO 527-2	MPa	2000
Impact strength (Charpy)	DIN EN ISO 179-1eU	kJ/m <sup>2</sup>	n.b.
Notched impact strength (Charpy)	DIN EN ISO 179-1eA	kJ/m <sup>2</sup>	14
Ball indentation hardness	ISO 2039-1	MPa	128

Electrical

Property	Method	Units	Specification
Specific surface resistance	DIN IEC 60093	Ω	10 <sup>14</sup>
Specific volume resistance	DIN IEC 60093	Ω*cm	10 <sup>14</sup>

Thermal

Property	Method	Units	Specification
Glass transition temperature	DIN 53765	°C	149
Melting temperature	DIN 53765	°C	n.a.
Service temperature	DSC	°C	140
Service temperature	DSC	°C	120
Thermal expansion (CLTE)	DIN EN ISO 11359-1;2	10 <sup>-5</sup> K <sup>-1</sup>	8
Thermal expansion (CLTE)	DIN EN ISO 11359-1;2	10 <sup>-5</sup> K <sup>-1</sup>	8
Specific heat	ISO 22007-4:2008	J/(g*K)	1.3
Thermal conductivity	ISO 22007-4:2008	W/(K*m)	0.25

Disclaimer. These figures are typical values for the material and do not represent a product specification. Properties will vary depending on source of raw material, method of processing, physical form of product, direction of measurement etc.